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EDITOR.

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## Editorial Buzzings.

**We Know** the little busy bee,  
Of which the poets sing,  
Points out a moral to us all,  
And does it with its sting.

**Every Day** is filled with useful lessons, if we would but observe, note, and learn as we go.

**Our Friend**, Hon. Eugene Secor, is now editing the Apian Department in the *Farmer and Breeder*, published at Cedar Rapids, Iowa.

**When** their labor is over for the day the bees rest in chains suspended from the ceiling of their habitation, one bee clinging by its forefeet to the hind feet of the one above it, until it seems impossible that the upper one can be strong enough to support the weight of so many hundreds.—*Professor Jaeger*.

**Glass in Crates** when shipping comb-honey was the subject of an editorial on page 135. After stating the Ruling of the Western Classification Committee, on June 23, 1891, that "honey in comb packed in boxes having glass fronts, should not be received for shipment, unless fronts are fully covered and protected," we remarked thus: "We must labor with the committee, and try to have the order revoked."

This advice has been acted upon by quite a number of apiarists all over the Northwest, and again bee-keepers are successful, as will be seen by the following letter from Byron Walker, dated at Glen Haven, Wis., on Nov. 4, 1891:

You can tell the readers of the *AMERICAN BEE JOURNAL* that I have secured a ruling from J. H. Ripley, allowing honey in cases with glass fronts to be shipped in "crates" protecting but *not concealing* the glass. I sent him one of my packages ready for shipment, and put the facts in the case before him in writing. This rule takes immediate effect. **BYRON WALKER.**

In *Gleanings* for Nov. 1 there was an article on the subject, asking bee-keepers to write to Mr. Ripley about his ruling against glass in crates, and we presume that he has been deluged with letters. S. T. Fish & Co. have also been laboring with him on behalf of honey dealers.

Bee-keepers can generally get what they unite in asking for in the line of rulings of postoffice and railroad officials, etc., because they act like the bees, and make such a "buzzing" about their ears, that they are glad to accede to the demands.

Our thanks are hereby tendered to Mr. Ripley for his consideration of our demands for justice.

**Forget Not** that the Northwestern Convention convenes next Thursday (Nov. 19), and that you should make arrangements at once to attend. Quite a number have, during the past week, written to us that they intend to be present. "Come up to the Feast."

**American Apiarists** seldom have anything to complain of in the treatment they receive in any country of the world, but by referring to page 623, it will be seen that Mr. Fleischmann has written an article for a German bee-periodical, which is very unfriendly as well as unjust. The Rev. Stephen Roese has replied to it for that periodical, and translated both for the *AMERICAN BEE JOURNAL*, as well as a very friendly editorial on the same subject from the pen of our friend C. J. H. Gravenhorst, of Braunschweig, Germany. For the latter, and his references to us, we make our politest bow.

While it is true that the first bees brought to America was landed at Boston in 1670, still for 150 years at least apiculture received but little attention, and was not carried on as an exclusive occupation.

It is not yet 40 years ago that the books of Langstroth and Quinby were published, and these marked the beginning of the era of scientific bee-culture.

In 1861 the first number of the *AMERICAN BEE JOURNAL* was published, and that has rendered much valuable service for 30 years—and now the number of those keeping bees in America is about 300,000; and the annual honey product, in ordinary years, amounts to about 100,000,000 pounds, which is worth at least \$10,000,000. The wax product is worth about \$750,000. These are not what Mr. Fleischmann so flippantly calls "honey-production on paper," but sober facts.

We are well aware that the Census Report of 1880 contained many errors, and have often pointed them out.

One simple item will show its error so palpably that no further words will be necessary. California's honey crop is the largest of any State, and yet in the Census Table it is credited with only about one-half as much as Arkansas, one of the States producing but comparatively a small amount of honey!

It also gives North Carolina credit for 50 per cent. more than Michigan, and

more than Illinois or Iowa! Such "statistics" are very misleading, to say the least.

Last year the honey crop of California alone amounted to 6,500,000 pounds. Over 5,000,000 pounds were shipped to home and foreign ports. This is one-fourth of the whole amount credited by Mr. Fleischmann to all the States and Territories of North America.

Of course, the Census Bureau made a great blunder, and it is, in a measure, responsible for Mr. Fleischmann's attack on American apiarists—but not for his malignity or abuse.

It is a notorious fact that the statistics given in the census of 1880 are utterly unreliable! This was admitted by Col. C. D. Wright, Chief of the Bureau of Labor Statistics at Washington, who was one of the principal persons who directed the formulating of the census of that year.

In an address delivered before the Social Science Association at Saratoga, N. Y., in 1887, Col. Wright reviewed the whole census matter, and pointed out its shortcomings, and then said:

These two questions—capital invested and average wages—as answered by the census, illustrate the fallacy of attempting to solve a certain line of economic questions through the census as it has existed. In making the criticism, let it be understood that I arraign myself as severely as any one else; for within a few years I have followed, in all the census work in which I have been engaged, the old form; nor did I fully comprehend the enormity of the error, and the infinite harm it has done, and is likely to do.

With this admission by Col. Wright, the assertions, arguments and innuendoes of Mr. Fleischmann fall harmlessly to the ground. "The earth labored and brought forth a mouse."

**Those** who are in arrears for subscription to the *BEE JOURNAL* for this year are reminded that the year is about closing, and it is time to pay up for this year, and add a dollar for next year.

**Nebraska Convention.**—The third annual convention of the bee-keepers' association of York County, Nebr., will be held at the home of L. D. Stilson, south of York, on Wednesday, Nov. 18, 1891, at 10 a.m. A full attendance of bee-keepers is desired, as business of importance to the trade will be presented for action.

A programme consisting of essays on the following subjects, by the persons designated, each to be followed by short discussions is sent to us by the Secretary, Mr. L. D. Stilson:

The Harvest just passed; can we improve upon it?—E. A. Butterfield.

The Hive I use, and why I use it—S. C. Gorham.

Bee-pasturage and honey-plants; how can we increase them?—P. S. Hull.

Honey in the household—Mrs. John Gunnell and Mrs. L. D. Stilson.

Bees on the farm—S. Spellman.

Bee-keeping, an occupation for ladies—Mrs. E. A. Butterfield.

What do I know about bees?—Geo. Rossiter.

What I do not know, but I wish I did know—L. D. Stilson.

Natural or artificial swarming—Chas. White.

Difficulties of a beginner, and how can I overcome them—B. Spurlock.

Profits of the apiary, questions by the Secretary.

**If You Have** any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time. We have a few Almanacs for 1891, which we are selling at half price.

**Every** American citizen is interested in the poet Whittier, who will celebrate his 84 birthday on Dec. 17. Frank Leslie's *Weekly* for Nov. 7 has a very striking full-page portrait of the poet, accompanied by a discriminating article as to his position in American literature.

**Ground Cork** is the best packing material for bees in Winter. It never becomes damp, and it is a thorough non-conductor. It is so cheap that its cost is practically nothing.

**Ants in the Apiary.**—In cold climates ants do little, if any, harm, but they are troublesome at the South, and California bee-keepers complain of them. The *Scientific American* recommends the following method when the ants become annoying:

Buy  $\frac{1}{4}$  pound or more of corrosive sublimate, powder it very fine, and strew the same sparingly on the ground, also in the crevices, nests and trails of the ants, and I guarantee the ants will leave your lawn and premises as quick as they have come. Corrosive sublimate is a deadly poison, and should be handled with care.

**Harry Stites, M. D.**, United States Examining Surgeon of Harrisburg, Pa., has purchased the entire apiary of the late H. K. Pepper (which consists of Italian bees and apiarian implements), and it was shipped last month to the Doctor's fruit and pineapple farm at Jewell, near Lake Worth, Dade County, Florida.

**Besides** a number of prominent apiarists from all over the Northwest, the editors of *Gleanings* and the *Review* will attend the Northwestern Convention at Chicago next week.

The editor of the *AMERICAN BEE JOURNAL* expects to be there to enjoy the feast, if health permits. He has been quite unwell for the past week or two, and may not be able to furnish essays promised for several conventions. If such are not received by the Secretaries in due time, this notice will furnish the reason.

**Harmony** broken, produces disagreeable effects everywhere. The most sensitive are the most appreciative. The more enlightened are beginning to observe and understand this subtle philosophy of cause and effect.

**The North American Bee-Keepers' Convention** will be held at Albany, N. Y., Dec. 8 to 11.

## Queries and Replies.

### Holes in the Sides of the Cells.

QUERY 792.—My bees averaged 50 pounds of comb-honey per colony, Spring count, and have plenty of stores for Winter. I left a few partly-filled sections on the hives, long after the bees had stopped storing honey. When I took them off, the bees had removed the honey, and the sides of the cells were full of little holes. This was the case with the combs that had been filled and capped. What was the cause?—Minn.

We have never seen that.—DADANT & SON.

I cannot tell without knowing more of the facts in the case.—M. MAHIN.

I could only guess, as I have never seen a case like it.—C. H. DIBBERN.

Perforated by the bees, if not done by larvae of the wax moth.—J. P. H. BROWN.

For want of other employment the bees probably cut the holes.—R. L. TAYLOR.

They wanted the honey down where they could use it during cold weather.—JAMES HEDDON.

"I do not know." I should suppose some insect must have done it. I cannot suggest even the perpetrator.—A. J. COOK.

I do not pretend to *know*, but I suspect the bees did it during the warm weather, when they had nothing else to do.—EUGENE SECOR.

They took out the honey, and carried it below into their brood-nest, and in doing so, ate through the walls of the cells.—MRS. L. HARRISON.

I do not remember having seen a case such as the writer describes. When honey has been removed by robbers, you will often see a case of this kind.—H. D. CUTTING.

If I understand you rightly, holes were in the cell walls. That looks a little as if robbers had been at work. Perhaps merely the bees of the hive.—C. C. MILLER.

I have not had holes gnawed in combs in supers when on the hive, but have had it done when placed at a distance from the apiary for the purpose of hav-

ing the bees clean the combs of honey after extracting in the Fall, if they were given free access to the combs.—A. B. MASON.

It is not uncommon to find holes in the sides of the cells in delicate combs, if the honey is removed by the bees in cool weather. The bees will readily repair the combs if used again for surplus.—G. L. TINKER.

The same as causes the bees to carry honey from the outside of the outside combs to the center on approach of Winter. This is done so as to concentrate the honey as near the cluster as possible, thus guarding against starvation in a long-continued cold spell.—G. M. DOOLITTLE.

I see nothing strange in this. Bees often remove the honey from unfilled sections, and tear the combs, to some extent, in doing so. They probably had room for the honey below, and took it down to the brood-chamber. As to the cause, we can only judge by the effect, which, I think, is rightly judged above.—J. E. POND.

If your bees were well supplied with stores in the brood-chamber, I can see no reason why they rifled the sections like robber bees. I often leave partly-filled sections on the hive to help the bees in the way of stores when they are a little short, and though the bees will consume the honey as they need it, they never damage the combs like robber bees. It is possible that your section-cases fit the hive so badly that robbers got into them.—G. W. DEMAREE.

It is often the case that the bees will remove the honey to the breeding apartment, to have it more convenient for Winter use. In doing so, they sometimes injure the combs more or less. In the absence of more particulars, it would be hard to account for the holes mentioned in the query. They may be the result of a visit by the wax moths.—THE EDITOR.

**Sometimes** it is important to know the colony from which a swarm issued unseen. This is Dzierzon's method:

After it has been hived and removed to its new stand, let a cupful of bees be taken from it and thrown into the air, near the apiary, after having sprinkled them with flour; they will soon return to the parent colony, and may easily be recognized by their standing at the entrance fanning, like ventilating bees.



## Topics of Interest.

### Driving Bees, Winter Food, Snow, Etc.

G. M. DOOLITTLE.

A subscriber to the AMERICAN BEE JOURNAL propounds the following questions, which I will answer by number:

1. "Would bees, driven out now into a hive, without honey in it, work as well as a swarm?"

The date given in asking this question is Sept. 3, and if I am to reply for that date, I should say that neither a driven or a natural swarm would do anything in this locality after that time. However, there are sections of country where the asters, golden-rod and heart's-ease abound, in which both might be got ready for Winter by filling their hives with combs when they were hived. As a rule, however, all increase should be made during June and July.

As to which is the best, a driven or a natural swarm, good authorities differ; some claiming that a driven swarm is as good as a natural one. I notice, however, that the advocates of natural swarming are increasing, and others diminishing, as the years go by.

It is always safe to say, in any event, that a swarm issuing in the "good old way," is fully as well equipped for the battle of life, if not better, than they can possibly be by the interference of man by way of a division. In artificial swarming the division of bees, as to the proper amount taken, suitable age, etc., is not likely to be as nearly perfect as it is by nature's plan.

#### FEEDING BEES FOR WINTER.

2. "What time is best to feed up for Winter, and how is it done?"

The proper time to feed when bees are lacking in Winter stores, is at the earliest possible moment after the bees cease to make a living from the fields, and as soon as most of the brood is hatched out of the combs. This time comes about Sept. 1, in this locality, and if possible, I should say feeding for Winter ought to be done in September in any locality. This gives the bees a chance to get the food evaporated and sealed over before freezing weather sets in.

Unless plenty of honey is on hand, make a food of water, sugar and honey, as follows: Take 15 pounds of water, and bring to a boil; add 30 pounds of granulated sugar, stirring it in. Bring

to a boil again, and upon setting from the fire, stir in 5 pounds of honey. This makes 50 pounds of food, equal to the best of honey, and it is ready to feed as soon as lukewarm. The honey is added to prevent crystallization in the feeder and combs. If the honey is not at hand, add a little vinegar or tartaric acid. The honey is much better, however.

To feed, remove the cover or cap from the hive, and set on top a large baking tin or basin, or a milk pan of the right size. Fill it with syrup, and put on a float of some kind, to keep the bees from drowning. I generally pull up a handful or two of grass near the hive, and put it on top of the syrup for this purpose.

Now, open a hole in the honey-board, or turn up one corner of the quilt, where such is used, and set a chip from the hole to the edge of the tin, so the bees can climb up to the feed. Pour a very little feed down through the hole to show them where it is, and put the cover on over all, making sure that no crack is left so any robber bees can get in. To guard against robbing, it is best to feed just at night, at all times.

#### PREVENTION OF ROBBING.

3. "What is the best and right thing to do when bees are robbing?"

The best and right thing to do is not to let the bees get to robbing. This is quite easily accomplished by keeping none but strong colonies, and allowing each colony an entrance, or doorway, according to the strength of the colony. In early Spring, when robbers are the most persistent, allow only room for one or two bees to pass at a time for the weak colonies, and give not more than 2 inches in length of entrance to the very strongest. Colonies so weak as to be unable to defend themselves should be united with others.

If it is desirable to save a colony which has been neglected till robbing has commenced, close the entrance so that only one bee can pass at a time, and leave them until near night, when all the robbers have gone home, then go to some strong colony, and get a frame having the most young bees hatching from it that you can find. After brushing the bees off from this, insert it in the center of the colony that has been robbed. Now, carry the hive to a darkened cellar, and leave it for three or four days, till the robbers have partially forgotten the place, and the young bees have hatched from the comb. Take the hive from the cellar in the evening, and place where it stood before, and you will

have no further trouble, if you are careful (as you ought to be at all times) not to let the bees get a taste of exposed sweets.

#### BEES UNDER SNOW IN WINTER.

4. "Would bees smother under a foot or two of snow?"

No; not if the colony was in a chaff or chaff-packed hive, as they should be in all Northern latitudes. If in a tight box-hive, and snow and ice should fill the entrance, they might do so.

The danger to bees when covered deeply in snow, seems to come from their getting too warm. This causes them to become uneasy and try to get out. If this state continues long, they are apt to contract the bee-diarrhea and die. This trouble is almost sure to come where hives are within an inch or two of the ground, so that the warmth from the ground adds to the warmth created by the bees. My loss in this way has been greater than from all other causes combined, when wintering on the summer stands.

5. "Would it pay to take a big swarm of bees, that had been driven for their honey, as a gift at this time of the year, and feed them for Winter?"

That would depend upon whether you had combs to give them or not. If you had six or seven frames filled with combs and honey which you could spare to put in an empty hive, and hive this driven swarm in, it would pay well; but if you have no combs, and had to feed to have them built, and for Winter stores also, it would be a doubtful investment. By the plan of combs of sealed stores, I have saved many doomed colonies.

Borodino, N. Y.

### Honey-Plants of Indiana.

MRS. W. A. MOORE.

Wild Parsnips—From June until late July.

Phacelia—June to October. A magnificent honey-plant.

Cynoglossum—June to October. Rich in honey; bees just revel in it.

Honeysuckle—June until October.

Mignonette—June till October. Honey from mignonette is of the most superior flavor.

Buckwheat—From June until September. Bees always busy upon this; besides enough honey is wasted by evaporation to perfume the air for some distance.

Hollyhock—From June until October. "Always covered with bees."

China Aster.—June to October.

Wild Touch-me-not—June, September.

Hedge Nettle—From June till August.

Wild Yellow Primrose—June, September.

Field Bean—June, July.

Spider Flower—From June till October. A wonderful honey-producer. The sight of a whole plant loaded with honey is enough to set any bee-keeper crazy. One acre of spider flower will yield 60 gallons of honey.

French Pink—June to September. Rich in honey.

Burdock—July, October.

White Smartweed—July, October.

Pink Smartweed—July, October. All plants of this family produce an abundance of honey.

Figwort—July, October. This flower is constantly filling and refilling with the purest honey.

Sunflower—July to October.

Ageratum—June to October.

Paint Brush—July to October.

Mourning Bride—July till October.

Star Cucumber—July, September.

Blue Lettuce—July to September.

Peppermint—July till September.

Bergamont—Early July till September.

Catnip—July till September. This plant will well repay cultivation for honey alone. "The bees work upon it from early morn till dewy eve."

Son Thistle—July to September.

Trumpet Creeper—July to September.

Garden Japonica—July to September.

Silk Milkweed—July to September.

Purple Milkweed—July to September.

Milkweeds furnish good bee-pasturage.

Rose of Sharon—July to September.

Thistle—July to September. Always alive with bees.

Snow-on-the-Mountain—July to early September.

Wild Lobelia—July to September.

Clematis—From July to August.

Wild Ageratum—August to September.

Wild Prince's Feather—August to September.

Ragweed—August, September.

Iron-weed—August, September.

Ox-eye Daisy—August, September.

Squash—August. The squash yields much honey.

Pumpkin—August to September. It yields fine honey.

Red Currant—May.

Gooseberry—May. In color and flavor gooseberry honey is preferred to white clover.

Wild Crab Apple—May. An abundance of clear white honey is yielded

from this; equal in quality to that of white clover.

Blackberry—May, June.

Sweet Clover—July to October. Honey secured from this plant is of a superior quality.

Bittersweet—July to August.

Wild Plum—May. Fruit blossoms afford a fine harvest for bees.

Scarlet Salvia—July to October.

Garden Sage—July, August.

Ground Ivy—May, August.

Blue Curls—May to September. The large labiate family are all fine honey yielders.—*Exchange*.

### Modern Bee Vocabulary, Etc.

G. W. DEMAREE.

I have been interested and somewhat amused at the discussion in the AMERICAN BEE JOURNAL, of late, concerning the word colony, stock, etc., as applied by modern writers to bees in the organized state.

It has occurred to me that if the difference is to be settled by appealing to the Dictionaries, or by going back of the Dictionaries to the fountain head—the manner in which the words in question were used by the old writers—I am quite sure that no very satisfactory conclusion will be arrived at. I hold that modern bee-culture must necessarily have a vocabulary peculiar to itself, because modern bee-culture is essentially a new thing, and either new words must be coined, or old words must take on new meanings to fittingly describe it. In all such cases the latter is generally done.

Bee-culture in the ages of the past was so fettered with superstition that no uniformity of expression is found in any of the old works on bees, as far as I have examined them.

An accurate old English writer of a hundred years ago, in a long essay on bees, bee-hives, etc., found in an old work in my library, uses the word "stock" in the sense of "hive of bees" but one time, and there in connection with increase by swarms. Thus: "Set aside — stocks for swarms." The word "stocked" is frequently used. Thus, "unite hives that are thinly stocked." The word *bees* after *hives* is dropped, being grammatically understood.

When this accurate old English writer of a hundred years ago quotes Pliny, Erasmus Darwin, Calumella, etc., he uses the terms "hive of bees," or "hives of

bees." He never uses the terms "stock of bees," or "stocks of bees." But he speaks of hives being strongly "stocked," or thinly "stocked with bees," in the sense of being well or poorly filled with bees.

I was pleased to see that he used the terms "prime swarm" for the first swarm that takes the old queen with it, and "after swarms" when speaking of the swarms that follow with virgin queens. I can see no more impropriety in saying a "hive of bees," or even a "hive," dropping the word *bees* after *hive*, than in saying, "Thou shalt be saved and thy house." The inmates of the house being grammatically understood.

The word "colony" is not used by this old writer in connection with bees. In fact, I do not remember of seeing the word colony in any old work on bees used in the sense of a hive populated with bees. I think it is safe to admit that it is a modern term when used in that sense. But to my mind this is no objection to the word as a nomenclature. In fact, it seems to me that it fills a long want, whether the want was felt or not.

It must be patent to any observing reader of ancient bee-literature, that no uniformity of expression is found therein. It is painfully defective of uniform nomenclature. Hence, the necessity of some word to be used as a uniform nomenclature, and I know of no better word than the word "colony," or "colony of bees."

The word "colony" is a desirable acquisition to our bee-literature," because it is used in no other sense than as a nomenclature. The word "stock," or "stock of bees," will never be adopted by American bee-keepers. It is an inappropriate term when used as a nomenclature, because few words have a broader meaning than this word. I may colonize a *hive* with bees, and thereby form a "colony of bees." But when I "stock a hive with bees," I do not make it a "stock of bees."

My apiary is "stocked" with more than one race of bees. I have the Italian stock, the Carniolan stock, and the Punic stock. I keep now but the best "stock" of bees, and if I discover that my "stock" is deteriorating, by reason of *in-breeding*, I introduce fresh "stock" from abroad, and thereby improve my "stock." I sometimes breed from imported "stock," and sometimes from improved home-bred "stock." At some seasons of the year my hives are strongly "stocked" with bees, and at other sea-

sons of the year they are thinly "stocked."

Finally, my apiary may be said to be well "stocked" with bees, but I would not like to say it is "stocked" with 70 "stocks."

The above will suffice to show how confusing and inappropriate the word "stock," or "stock of bees," would be if adopted as a nomenclature.

Christiansburg, Ky.

[Brother Demaree is right. The word stock furnishes a regular kaleidoscope of meanings, and is indefinite and inappropriate when used for the word colony, as applied to bees.—Ed.]

### Electricity and Apiculture.

HENRY K. STALEY.

Electricity and apiculture should go hand in hand. They are two pursuits that have made mighty strides, and accomplished great achievements for the benefit of mankind in the last few years, yet it seems that the two have been completely isolated as regards any mutual benefit existing between them.

Electricity is proving itself utilitarian. Indeed, there is seemingly nothing to which it cannot be applied with greater economical efficiency than the agent applied to that object or pursuit before. Thousands and thousands of men are now numbered among its laborers, and millions upon millions of capital have been laid at its feet.

We see it taking an active part in electro-plating, making it possible for people of small means, who are endowed with a love of art, at once able to procure copies of some of the costliest and most renowned pictures in the world to-day, at a mere bagatelle.

We see the electric street railway cars displacing those of the old horse type, and doing away with all that beastly, inhuman suffering. We see the clean, frugal, responding-at-the-touch motor in stores for ventilation, and in the workshops for manufacturing purposes, applied to almost every kind of mechanical device; yet I have never heard of honey extractors being operated by electricity where a great deal, or even a small amount of extracting was to be done.

From one to any number of extractors could be manipulated simultaneously by means of shafting and gearing, in conjunction with electricity, at a small

expenditure of money. If the apiarist lives in a town, he could either buy or rent a motor, and then contract for power from some electric light company. The motor could be adjusted to operate a great many devices. He might want to run a buzz-saw, and manufacture his own hives, surplus sections and other bee-paraphernalia; or by attaching it to a churn or washing machine, relieve his wife of a great deal of manual drudgery in the way of making butter and washing clothes.

Now, with reference to those enormous apiaries situated away up on the Rocky Mountains, or down deep in the valleys of California, which are practically inaccessible to any kind of power save steam and compressed air, and that at great expense on account of the exorbitant price of fuel. We see that to run a steam plant would require a great amount of fuel, along with the other operating materials, and experienced and skilled labor, which the apiarist could ill afford.

But take, for instance, the great natural resources of energy in the West which are going to waste, in the way of waterfalls, having a drop of from 20 to 30 feet within 2 or 3 miles of the bee-keeper. By means of turbine wheels and a dynamo at the waterfall, this energy could be electrically transmitted through insulated copper wire to the motor at the home of the apiarist, and do all of his work; and not only that, as the surplus current could be put to charging storage batteries, by which he could have electric fans and electric lights in his own house.

Bee-keepers with a few colonies, if not too far distant, could bring their storage batteries to him, have them charged for a small sum, and go on their way rejoicing. I am sure this would be both beneficial and economical for the bee-keeper. It has proven itself so for heretofore unprofitable mines, on account of being situated in uneconomical locations with respect to power.

As energy transmitted electrically is able to turn out about 70 per cent. of the primal energy of the waterfall, after 3 or 4 miles travel, it will be seen that if the apiarist is on the very peaks of the Rockies, he can have cheap power at his command, and utilize it in ways greatly diversified. Of course, I am now referring to large apiaries, where a great deal of work is to be done, and which are depended on for the bread and butter of the family.

Now, I believe this could be made thoroughly practicable in view of what



is going on daily around us. Take for instance dental electricity, and see how heretofore unnoticable cavities in the teeth are brought to light by means of the miniature incandescent lamps. By means of it, the hidden recesses of the stomach are brought to light, so that the doctor can perceive what is going on therein as easily as though there was an invagination of that organ.

Board the electrically equipped steamers, and there, even upon the bosom of the mighty and heaving deep, the electric light is at your bedside. Go down into the mines, and see the train of cars running along at a jolly rate under their burdens, at the command of the motor man. Here you will see electric percussion drills, operating under power brought 5 or 6 miles from its primal source. What before were unprofitable regions and unoccupied, are now teaming with life and mechanical activity. The mines are lighted by electricity, thereby avoiding all danger from the explosion of methane or fire-damp.

But on the other hand, suppose that the apiarist has only a few colonies. He can at an inexpensive expenditure procure one of the many small portable motors now on the market, which, in connection with open circuit batteries, will operate his extractor at high efficiency. The case of the chemical fuel for the batteries would cut but a small figure. From 15 to 20 cents would be the probable amount for 12 hours' consecutive running; and then think of the time and labor saved!

Let us suppose that the motor, extractor and batteries are all connected up and ready for operation. Having put the first set of uncapped combs in his extractor, he throws the switch, and having standardized or regulated the motor to the right speed for the extractor, he leaves his honey-house and secures another relay of combs from the hives. By the time he returns to the honey-house it is time for a reversion of the combs. It takes but a jiffy to do this, when the switch is thrown again, and by the time his second set are uncapped, his first set are ready for the hives. Supernumary laborers are done away with, and the apiarist is able to do his work frugally and expeditiously, thereby avoiding the tendency to create robbing, and its concomitant troubles in times of drouth or poor honey-flow.

And I desire to say right here, that I believe as yet apiculture to be in an abacial attitude. The old hand-turning process must be relegated; time is

money to the bee-keeper, especially when there is a shower of honey, as in the case of apple bloom, locusts and the linden. We must keep apace with the times. We live in an age of inventiveness, and hence I believe in the saying of

"Be not the first by whom the new are tried,  
Nor yet the last to throw the old aside."

If you are convinced, after a thorough trial of the advantages of new inventions in the way of hives and bee-fixtures, and you see that the time and money gained will make up for the cost of the new inventions in a short time, by all means relegate the others to the rear.

You may consider honey a luxury, but I think as the price of sugar decreases, there will be less and less of it bought by the poor and needy, because the difference in price between the two will represent too much money. About 25 pounds of sugar and 10 of honey at a dollar each; how are you going to reconcile them for the *vox populi*? I maintain that honey, in view of its medicinal properties, should be on the table of every man.

Now, if new inventions would reduce operating materials and expenses to such a minimum of cost as to allow of a scaling down in the price of honey proportionate to the dropping in sugar, and at the same time allow the apiarist to make a fair commercial profit, honey would not be held in the light of a luxury as it now is, but would be consumed to a greater extent, and treated more in the nature of lard and butter. That is the way to secure a market for our honey.

We want people to sweeten their coffee and oat-meal with it; spread it on their bread and buckwheat cakes; use it for medicinal purposes; put their fruits up in it and what not. But if the difference in price between sugar and honey is allowed to increase, I do not see how we can attain that much sought after desideratum, *i. e.*, a ready market for all the honey we can produce, at a fair commercial profit.

We should not forget that under the "McKinley Tariff Bill" a bounty of 2½ cents per pound is paid to the sugar producers of this country. Senator Sherman feels that the beet sugar industry, like Eli Whitney's cotton gin, will revolutionize the production of sugar in this country, and that it will only be a matter of few years, under wise and discriminating legislation, that we will produce all the sugar we need, and at a cheaper price than we can buy

it abroad, as we are a practical people, and live in one of the finest beet sugar growing countries in the world.

Now, then, we, as apiarists, should not be loth to see these things, nor slow to employ time and labor-saving machines. This is no time to tarry hours and days in the apiary, waiting for a swarm to issue. A great many people do not depend upon bee-keeping as a bread-and-butter pursuit, on account of the uncertainty of good honey seasons, and therefore carry on bee-keeping in conjunction with some other pursuits, and cannot afford to be in the apiary all the time. They do not feel like going into the more experimental part of clipping wings, using queen cages, and all the other clap-trap of self-hiving devices. If we could devise means whereby we could know to a certainty when a swarm will issue, we would have accomplished one of the greatest attainments in bee-culture.

I am an exponent of natural swarming to the extent of letting each colony cast one swarm, and no more. If divided artificially or kept from swarming, I believe they lack the energy contemporaneous with natural swarming. Alley's swarm-catcher and self-hiver I believe have been weighed in the balance and found wanting, along with the rest of a kindred nature.

For some time past I have been turning my thoughts in the direction of electricity. I do not say that I have solved the swarm question. I was not born an inventor, but I give my ideas for what they are worth, and trust that some one will be able to exhibit a complete, successful and practical model at the World's Columbian Fair, at Chicago, in 1893, or before that time if possible.

It must consist of a standard hive now in use, so arranged on an apparatus as to allow two electrical terminals to come together when a certain number of pounds of bees leave the hive, thereby closing the circuit and ringing the bell in the house. The hives could be numbered and wired upon the annunciator plan, or in the cheap system connecting all the hives in multiple, using one bell and the earth for return circuit. In this way any number of hives could be connected up on one bell with a couple of batteries.

Suppose now, we have wired on the annunciator plan, and then if colony No. 10 casts a swarm, down goes the coinciding dial on the annunciator, and the servant brings the information to the master in the library, who is reading

Doolittle on "Queens and Queen-Rearing," with as much stoicism as though she were only handing him the daily paper.

He now proceeds to colony No. 10, which he removes to a new location, and hives the swarm in a new hive with full sheets of comb-foundation on the old stand. The partly-filled surplus receptacles of the old hive are now transferred to the new hive, and we have "let nature take her course," and have two good working bee-armies at our command.

You may make light of this, as people have of other great changes before, but still I believe the time will come when we will know for a surety, when a normal prime swarm issues from a healthy normal colony. The above problem presents many intricate perplexities, which I have not as yet been able to solve. If we calibrate the distance between the two terminals at a distance of  $\frac{1}{4}$  of an inch under a pressure of 100 pounds (and this we will assume to be a fair load for a hive and its contents) for bringing the terminals into contact when the weight has been decreased 10 pounds, we see that that distance should vary as the weight of the hive fluctuates. We should so fix the distance between the two plates as to allow for a medium sized swarm under a pressure of 100 pounds.

Now, it is manifest that if we maintain the distance the same under 200 as 100 pounds, our circuit will fail to close, and we will lose our swarm. What we want is an inexpensive mechanical device for the hive to rest on, which will graduate the difference between the terminals in proportion to the weight. In other words, when 10 pounds of bees leave the hive under a pressure of 200 pounds, the distance will be so diminished in proportion to the increase in weight, on account of the less lifting power of the springs, as to be able to make contact, and close the circuit. Now, the same thing should be attained under a pressure of 100 pounds, albeit the distance between the springs is greater, but we see that we have a greater lifting power in the springs.

I recognize the plexiform ramifications in the above, yet I remember that great inventions have had their obstacles to overcome, which I need not recite, as they are now revolutionizing the world, and are too multifarious to mention.

Cincinnati, Ohio.

## Bee-Keeping in America—A Contrast.

REV. STEPHEN ROESE.

Following is a translation of an article written by P. Fleischmann, and published in the July number of the *Leipziger Bienen-Zeitung*:

"The *Stone of the Wise*, in No. 13, 1890, gives the annual honey and wax production of the United States, according to the last census, and as those American lords are always dealing with endless figures, which find their way into our German bee-periodicals, and make our German bee-keeping, in contrast to theirs, appear as O, I think it wise to refer to official figures to prove that, on the other side of the water, more honey is harvested on paper than in reality, and that the 100-pound hives which, even in Winter, the newspaper editors keep hurling about as bird baits, are a scarcity, even in the promised land of North America, and according to the unwished-for figures which I shall produce, North America is far from the land where milk and honey floweth, although these lords across the water almost compel us to believe that it is that land.

"If we consider that the United States comprise an area almost as large as all of Europe (the latter having 10,337,460 square miles, and the former 9,187,350 square miles), and that the immense territory of the United States is inhabited by 56,000,000 people, and bee-pasturage cannot be limited, then we of old age-weakened Europe will still compare favorably with young America.

"The *Stone of the Wise* reports that in old times, and in all countries, as far back as history reaches, bee-keeping has formed an important branch of agriculture, and that bees were introduced into the United States by Germans—perhaps by immigrants, who settled in Germantown, near Philadelphia.

"Apiculture has, therefore, made but slow progress in that country, as in this pursuit great patience and endurance is needed—a virtue which all mankind do not possess, and especially all Americans!

"It appears, then, that after a lapse of 200 years since the introduction of apiculture into the United States, the last census contained the report of an annual honey production of 25,743,208 pounds, and a wax production of 1,105,689 pounds.\*

"Following are the best honey-producing States:

	Honey.	Wax.
Arkansas .....	1,012,721	42,354
Georgia .....	1,056,034	69,318
Illinois .....	1,310,809	45,640
Indiana .....	976,581	31,637
Kentucky .....	1,500,565	46,912
Michigan .....	1,028,595	32,088
New York .....	2,088,845	79,566
North Carolina .....	1,591,590	126,268
Ohio .....	1,626,847	56,333
Pennsylvania .....	1,415,093	46,610
Tennessee .....	2,130,689	86,521
Virginia .....	1,090,451	53,200

"These are specifically the Middle States, and we find no mention of California in the statistics."

"As California furnishes honey to Germany, what a strange mess must be sold for California honey, and for which good German money is paid, if California is not even classified with honey-producing million-pound States!

"It is interesting to note that the honey and wax production is much alike, with the exception of North Carolina, which State reports an unusually large wax production. What is the cause? Is monopoly ruling there? Perhaps some of the bee-keepers of North Carolina can give us some light on this subject.

"The *Stone of the Wise* reports further, that the widest spread race of bees is the black—a proof of their German origin. Aside from this, all known races of bees are bred—the Italian, Cyprian and Carniolan.

"An annual honey production of 26,000,000 pounds for a population of 56,000,000 is a small proportion—only  $\frac{1}{2}$  pound for each inhabitant—and in our estimation incorrect, for the denser the population, the less honey to each inhabitant. But the census report of such a small honey production for an area of territory like the United States, where the land is not worn by cultivation, is less than we were led to expect by the American bee-periodicals, which always indulge in high figures."

After reading the foregoing article I was so much displeased at its unfairness and utter lack of fraternal feeling, that I wrote a sharp criticism to send to the publishers, and which was harsher in its tone than the following, which is a translation of the first draft of my reply:

MR. EDITOR:—I am sorry that I am under the necessity of saying to you that the article entitled Bee-Keeping in the United States of North America,

\*See editorial comment on page 614.

which appeared in No. 6, Vol. 7, of your journal has created very unpleasant feelings among the bee-keeping fraternity.

I had sent off several copies of that issue to applicants (who saw the advertisement in the AMERICAN BEE JOURNAL that I was your agent) before reading the article in question myself, and from some of the parties have received replies, stating that if the German bee-periodicals will belittle American bee-keepers in such a manner, they did not care to subscribe for a paper which would speak of American bee-keepers as men of little patience and endurance, and, worse than this, as men who practice deception, and are guilty of untruthfulness.

I am compelled to say that the author of the article in question must be devoid of all brotherly love and human kindness, as the article itself will prove.

The writer is a reader and correspondent of four bee-periodicals in the English language, all first-class, and must say that American bee-periodicals in general breathe the spirit of love and kindness for each other, and especially for their German brothers across the water; and that the statement that American bee-keepers look upon apiculture in Germany as a *O* is an untruth, for they often wonder that Germany, with so dense a population, can produce such an amount of honey, and they give the Germans praise for such perfect organizations as they have—Sections, Vereins, and Central Vereins—and are not envious of them at all.

The gentleman who wrote that article should not have been so hasty in his statement that it was very wise to take official figures to disprove the statements of his bee-keeping brothers in the United States.

How does he know that the report from 13 States out of 42, and 7 Territories, is a full report of the honey and wax production for that year? The Southern and Northwestern States, and the States and Territories along the Pacific Coast are not even named.\*

The gentleman takes the liberty to say that on this side of the water there is more honey harvested on paper than in reality, and that the 100-pound hives in the promised land of North America are a scarcity, and that America is by no means the land where milk and honey floweth.

After he has produced those figures, any novice could disprove the gentleman's statement, for in ordinary seasons it is no uncommon thing to harvest from 140 to 200 pounds of honey per

colony, and experts, who have their colonies ready for the honey-flow, have produced as much as 300 pounds per colony; but we always rejoice when the countries of age-weakened Europe compare favorably with young America—especially our beloved fatherland, Germany.

American bee-keepers are not ashamed of the statement of that noted writer on apiculture, Tony Kellen, that at one time America learned from Germany; neither do they seem proud of the fact that in inventions and methods in apiculture America is in advance of Germany to-day.

*The Stone of the Wise*, which seems to be Mr. Fleischmann's chief authority for his statements, must be possessed of great wisdom, indeed, and it is to be hoped that it will not make his statement appear ridiculous, that bees were introduced into North America by the Germans.

I shall not contradict him, but I doubt that apiculture has been carried on in the United States full 200 years,\* for the AMERICAN BEE JOURNAL is the oldest bee-periodical in the United States, and its existence dates back only 30 years.

If Germany pays good money for mixed messes of California honey, it is not the fault of American bee-keepers if such fraud does exist, for there is no more honorable class of people in any branch of business in America than bee-keepers. They have confidence in each other, and any member who practices fraud will soon be exposed.

Mr. Fleischmann thinks that he has discovered something wrong with the wax-production statement of North Carolina, and mistrusts that monopoly, and misstatements exist there, and wishes some bee-keeper to give him light on the subject, which, undoubtedly no one will be able to do, for this gentleman seems to be possessed of an eye of jealousy toward his brother bee-keepers across the water.

Mr. Fleischmann looks upon American apiculture as unworthy of notice, for he credits us with only  $\frac{1}{2}$  pound of honey to each of our 56,000,000 inhabitants. But here let me say that more honey goes to waste in the United States for lack of bees to gather it, than is in reality gathered, and should the gentleman go to the trouble and expense of a visit to the World's Columbian Fair, the American bee-keepers will show him

\* See editorial comment on page 614.



what love and good-will they entertain for the brotherhood.

As a contrast to Mr. Fleischmann's ungenerous article, I have translated from the *Deutsche Illustrierte Bienenzeitung* for October, 1891, an editorial on the same subject, but taking just the opposite view. The editor is Mr. C. J. H. Gravenhorst, one of the most progressive and advanced apiarists of Germany, who constantly reads the American bee-periodicals, and is fully competent to give an unbiased opinion on the subject. Friend Gravenhorst remarks as follows:

The notable elevation and great advancement of apiculture in the United States, in late years, has given it much prominence.

It is surely a matter of no little interest to bee-keepers of Germany, who anxiously watch for whatever occurs in that direction on the other side of the Atlantic Ocean. There apiculture has developed under the most favorable circumstances, by the constant invention of practical methods and implements. By these, our cousins have developed a flourishing condition, diverse from that in Germany, aided by their energy and patience, and differing to some extent in its tendency.

Of the 300,000 or more persons who there keep bees, the great majority do so for profit; that is, they do it for a livelihood; only a small portion of them engage in the pursuit as a side-employment, or for pleasure.

Apiaries of from 100 to 500 colonies of bees are the most numerous, and notwithstanding the low price honey brings in America, many millions of dollars are annually realized from its sale. Besides this, just as much or more comes from branches of industry where honey and beeswax are used, which have been called into existence by these products, and are thus closely related to apiculture.

Only those who are ignorant of apicultural facts will deny that the Americans have outdone us, and that we can now learn from them in many ways, just as they, in days gone by, learned from us the fundamental principles of apiculture; and to this very day they glean from us in that line, and gladly acknowledge it. Although justly proud of their own accomplishments in this direction, they modestly greet and recognize anything

from us which they deem of practical value, and use it for the common welfare.

It is pleasant to notice how vigilantly German bee-periodicals watch for the inventions in America. The *Deutsche Illustrierte Bienenzeitung* is no longer envied for having from its inception acted in a sort of mediatorship; in fact, the German periodicals now rather emulate its example.

We must put to practical use everything which appears in the field of apiculture on the other side of the Atlantic. Some things might rather indicate backward steps, but notwithstanding this, with a knowledge of the same, our opinions will be broader, as we cannot be biased by mercenary ideas.

To the energetic and enterprising men who have for many years labored and toiled for the advancement of apiculture in America, belongs Mr. Thomas G. Newman. Born in England, he learned the art of printing, and emigrated early to America. He then became interested in apiculture, and finally became managing editor of the *AMERICAN BEE JOURNAL*, which was called into existence by Samuel Wagner, in 1861, who felt it to be his duty to acquaint his countrymen with the progress of German apiculture.

I became acquainted with Wagner through Pastor Klein, in the year 1865. I then became connected with him as a co-laborer, and have regularly served the *AMERICAN BEE JOURNAL* from that date to the present day. During these years I have made it a point to translate the most interesting articles into German, for the several German bee-periodicals, especially the *Deutsche Illustrierte Bienenzeitung*, in order to keep the German bee-keepers posted on the events transpiring in the field of apiculture in America.

When Samuel Wagner died in 1872, the *AMERICAN BEE JOURNAL* passed into the hands of W. F. Clarke, and shortly afterwards it was purchased by Thomas G. Newman. By his management the *BEE JOURNAL* soon appeared semi-monthly, and for 11 years it has been published weekly.

Newman is of a poetical nature and talent, and is a practical printer, and perhaps a still more ready and able speaker. I formed acquaintance with this lovable man in 1879, at Kensington, England, and enjoyed with him and friend Dennler the successful banquet of the hospitable bee-keepers of England, at Horsham, at the beautiful

country cottage of Mr. Thomas Wm. Cowan, on July 28, 1879.

Thomas G. Newman is also known to many German bee-keepers, for he visited the Wanderversammlung der Deutsche Oestreich-Ungarischen Bienenzeuchter, at Prague. His residence is in the world-renowned city of Chicago, Illinois, where in 1893 the great World's Fair will be held, for which event the American bee-keepers are now making great preparations. This exhibition, so far as apicultural interests are concerned, will be a grand one.

Thomas G. Newman has, outside of his editorship, compiled and published some valuable apicultural works. One is entitled, "Honey as Food and Medicine," and the other, "Bees and Honey; or Bee-Keeping for Pleasure and Profit."

Newman has repeatedly been elected President of the North American Bee-Keepers' Association, and also of the National Bee-Keepers' Union. The meetings of the former he attends regularly, and is always an able speaker, and is listened to with interest. As Manager of the Union, he successfully defends the rights of American beekeepers.

### Carniolan Conundrums.

J. A. GREEN.

Having been very busy for some time, getting my bees home from out-apiaries, and preparing them for Winter, I have allowed Mr. Alley's conundrums, on page 524, to remain unanswered until now. They are not at all hard.

To the experienced apiarist, Mr. Alley's explanations are as transparent as his statements are unfounded. But if a word of mine may help to prevent the inexperienced from being taken in, it shall be given.

Mr. Alley's reply to my statement in regard to the generally-accepted belief that the meeting of queen and drone may take place a mile or more from their respective hives is simply a "bluff."

He says that "the inexperienced beekeeper is the only person who would make such statement." I personally know that many of the best apiarists agree with the statements made by me on page 467, and since their publication I have received letters from several of the most prominent ones, endorsing and commending the article.

Mr. Alley asks: "If the Italian drones would fly 2 miles to meet the Carniolan queens, why would not the

Carniolan drones fly the same distance and mate with the Italian queens?"

This might be a poser, if it were true that they did not; but Mr. Alley makes it as plain as day in the paragraph above, wherein he says that drones were not permitted to fly from more than one Carniolan colony.

Within a radius of 4 miles from Mr. Alley's apiary, no doubt, there are dozens, and perhaps hundreds, of colonies of Italians.

Suppose, for the sake of illustration, that there are a hundred. Then, even if it were not for the fact that a queen is more likely to mate with a drone from another apiary than with one from her own, there would be 100 chances that a Carniolan queen would mate with an Italian drone to one that she would mate with a Carniolan.

On the other hand, there would be only one chance in a hundred for an Italian queen to mate with a Carniolan drone. This fully answers both of Mr. Alley's questions.

Mr. Alley says: "I have explained how they (the "golden" Carniolans) were produced, and have informed the readers of the BEE JOURNAL of the method by which any one can reach the same results." Mr. Alley has not "explained" how they were produced. He has told how they were produced, and I, and others, have furnished the explanation.

Undoubtedly, any one who follows Mr. Alley's methods will achieve the same results, but it is to be hoped there are not many who, having bred a bee fifteen-sixteenths, or more Italian, would claim it as a typical Carniolan, and by specious argument attempt to bolster up that position.

I appreciated Mr. Alley's compliment to the manner in which I have treated the subject. I do not consider the columns of a public journal a proper place for abuse and vituperation. I would rather prove a man a swindler than to call him one. If I have treated Mr. Alley in a manner different from that of some others, it does not in the least follow that my private opinion of his business methods is at all different from that of those whose opinion might be too emphatic to look well in print.

I know that by continuing to oppose Mr. Alley in this matter, I am probably throwing away my only chance of getting from him those queens ordered and paid for over a year ago, but as I had about given them up, it will not be a fresh loss.

Since the publication of my article, on page 466, he has shown a commendable,

though unsolicited anxiety to fill the order "when they were needed," though before he paid a noble disregard to communications on the subject.

Dayton, Ills.

### The Queen Bee—Interesting Legends.

A king once had two sons who were considered clever; yet they wasted their time and money in folly and dissipation, and were scarcely ever at home. They had a younger brother whom they called stupid; because he was quiet and simple, and they used to make sport, and mock him, and say that such a simpleton as he would never fight his way through the world, for they, with all their cleverness, found it a very difficult matter.

One evening, however, they took him for a walk with them, and on their way they met with an ant hill, and the two elder brothers wanted to overturn the hill, that they might see the little ants running and creeping about in their fright, and carrying their eggs away to a place of safety. But the simpleton said: "No, no; leave the little creatures in peace. I do not like to see them disturbed."

The brothers gave way to him, and they went on quietly till they came to a lake on which a large number of ducks were swimming, and the brothers wished to catch one or two for roasting; but the simpleton said: "Leave the poor birds in peace; I cannot endure that you should kill any of them."

So the ducks were left to live, and the three brothers walked on again, until at length they came to a bees' nest in a tree, with so much honey that it ran over on the trunk. The two brothers wanted to light a fire under the tree to smother the bees, that they might take away the honey; but the younger brother held them back. "Leave the poor insects in peace," he said; "I cannot bear to think of their being burnt."

Again they listened to him, stupid as they thought him, and the three brothers walked on until they came to a castle where in the stables stood horses of pure stone. They went all over the rooms and through the castle until they reached a door to which were three locks. The center of this door was glass, through which one could see into the room. They looked and saw a very old man sitting at a table. They called him more than once, but he did not hear until they called a third time. Then he rose up, opened the three locks, and

came out. Even then he uttered not a word, but led them to a richly prepared table, and after they had eaten and drank as much as they wished, he allowed them to remain all night and sleep in his own chamber.

The next morning the gray old man came to the eldest brother, made signs to him to follow, and led him to a stone table, on which were engraved three sentences, the first in the following words:

"In the wood under the moss are scattered the pearls of the king's daughter; they are 1,000 in number, and whoever can find them all in one day before the sun goes down, will release the castle from its enchantment; but if he should search and not succeed before sunset, he will be turned into stone."

The eldest brother read these words, and determined to try. He searched for the whole day, but when the hour of sunset arrived, he had only found 100 pearls, and, according to the writing on the table, he was turned into stone.

Notwithstanding this, the second brother made an attempt, and began his task in the evening, so that he searched all night, but with very little more success than his brother. By sunset next day he had only found 200 pearls; he was therefore turned into stone.

At last came the turn of the simpleton to seek among the moss; but he had no confidence in himself, and he was so miserable at having to find the pearls, that he went quite reluctantly, and when he reached the place, sat down on a stone and wept. As he sat there weeping, he saw coming toward him the ant king, whose kingdom and life he had saved, with thousand of his ants, and it was not long before they had found all the pearls, and piled them up in a large heap. Then they went home, scarcely waiting for his thanks; they had only intended to show their gratitude.

The poor simpleton was quite overjoyed; but on returning to the castle he found the second task awaiting him. It was to fetch the key of the princess' sleeping chamber from the bottom of the lake into which it had been thrown. So the simpleton went to the shore of the lake, wondering what he should do. But the ducks knew him in a moment, and were ready to help him, because he had saved their lives, and asked what he wanted. No sooner had he told them than they dived to the bottom, and in a few moments brought up the key and gave it to him.

There was still another task to per-

form, and the most difficult of all. He had to go into the room where the king's three daughters were sleeping, find out which was the youngest, and the most beloved, and wake her.

The sisters exactly resembled each other; the only thing by which they could be distinguished was that before they went to sleep, the eldest had eaten barley-sugar, the second a little syrup, and the youngest a spoonful of honey.

But in the midst of the youth's trouble and wonder how he should find out which was the youngest daughter, in came the queen-bee whose community he had saved from the fire, and she went to the mouths of the three sleepers and quickly discovered by the breath of the youngest that she had eaten honey. She remained on her mouth, and the youth knew by this which of the king's daughters to awaken. No sooner had he done so than the castle was disenchanted, and all who had been turned to stone resumed their proper forms.

The simple brother married the youngest daughter of the king, and became king after her father's death. His brothers married her two sisters. After all, it was better to be simple and kind hearted than clever and cruel.

### Putting Bees into Winter Quarters.

November is usually the month that the severe weather of the Winter season commences. When it once gets cold and has the appearance of remaining so, then it is time to put the bees into Winter quarters, and not before.

It is a mistake to put them in special Winter repositories when the first temporary cold weather is experienced, as they soon get uneasy if it becomes warm; and it is advantageous to have them fly as late as possible.

When putting bees into the bee-house or cellar, they should be prepared just the same as those out of doors, except the packing. Use carpet or duck for covering the frames.

If any are short of stores yet, fill an empty comb with syrup and place it in the hive. This can be done in pretty cold weather and disturbs the bees but little.

The colonies left on the summer stands should have some kind of wind-break. If possible, the apiary should be provided with a high tight board fence.

In removing the bees from their summer stands they should be handled carefully, and it must be cold enough to keep the bees from flying.—*Indiana Farmer.*

### CONVENTION DIRECTORY.

#### *Time and place of meeting.*

1891.  
Nov. 19, 20.—Northwestern, at Chicago, Ills.  
W. Z. Hutchinson Sec. Flint Mich.  
Dec. 2, 3.—Eastern Iowa, at DeWitte.  
Frank Coverdale, Sec., Welton, Iowa.  
Dec. 8, 11.—North American, at Albany, N. Y.  
C. P. Dadant, Sec., Hamilton, Ills.  
Dec. 16, 17.—Illinois State, at Springfield.  
Jas. A. Stone, Sec., Bradfordton, Ills.  
Dec. 31.—Michigan State, at Grand Rapids.  
Geo. E. Hilton, Sec., Fremont, Mich.

**[E]** In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

#### **North American Bee-Keepers' Association**

PRESIDENT—P. H. Elwood....Starkville, N. Y.  
SECRETARY—C. P. Dadant.....Hamilton, Ills.

#### **National Bee-Keepers' Union.**

PRESIDENT—James Heddon...Dowagiac, Mich.  
SEC'Y AND MANAGER—T. G. Newman, Chicago.

### Bee and Honey Gossip.

**[E]** Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

#### **Bees Unprofitable.**

Bees have not done well here this year. Mine are nearly all dead. I thought for awhile it was foul-brood, but now I think that it has been caused by the loss of queens from old age, as we have had very few swarms for two years, having had unfavorable weather in the Spring, each year. There are so few honey-producing plants here that the zeal of bee-keepers will cool off sooner or later.  
J. M. McDANIEL.  
Peoria, Tex.

#### **Introducing Old Virgin Queens.**

Breeders of queens have advertised virgin queens for sale during the past season, and no doubt many of them have been sent out all over the country. It occurs to me that it would be interesting to have reports through the AMERICAN BEE JOURNAL as to what success has been met with in the introduction of these "old virgins" received through the mails, following the directions sent with the queens. I will begin the re-



ports by saying that I have received two, and lost both by following, to a dot, the directions sent with them. But I can safely introduce such virgins by the use of the nursery, and all sealed hatching brood.

G. W. DEMAREE.

Christiansburg, Ky.

### Uniting Weak Colonies—Feeding.

1. What are the proper quantities of sugar and water for feeding bees? 2. What is the best method of mixing 2 weak colonies of bees, to make one out of them.

E. H. MURPHY.

Mananah, Minn.

[1. For feeding the bees in the Fall for Winter stores, take 3 pounds of Coffee A sugar and 1 pint of boiling water. Simmer 5 minutes.

2. Sprinkle the frames and bees with sweetened peppermint water, or smoke them well, so as to confuse the "scent." Then remove one of the queens, and alternate the frames. Examine them after about 20 or 30 minutes to see if they are peaceable. If not, repeat the dose of smoke or peppermint water until they are quiet.—ED.]

### A Busy Doctor.

I have done very little writing during the past three months, and have neglected almost everything in order to care for the sick. We have had a very fatal form of typhoid fever here this Fall, and again I have been called upon to treat this class of cases. So far I have not lost a case, and have at this time only one case on hand, which is steadily improving. The good old AMERICAN BEE JOURNAL comes as regular as ever, and is appreciated. Eleven years have I read its pages, and it grows instructive and entertaining with the lapse of time. May you stand at its head yet many years to guide its course.

G. L. TINKER.

New Philadelphia, Ohio.

### Cappings of the Honey.

Mr. Wander, on page 533, has "wandered" considerably. I did not claim that Italian bees built finer comb than the black bees. I claim that the honey they gather is clear at times when the honey gathered by the black bees is

dark, but at times the honey gathered by the black bees is clear, and they cap it white and nice. The reason that the capping of honey by the Italians is the color of the honey is, that they fill their cells chock full, while the blacks do not fill their cells more than about  $\frac{3}{4}$  full, and then place a nice white capping on them.

J. H. BERRY.

Gale's Creek, Oreg.

### Amusing Boom.

We are much amused at the booming of the so-called "Punic bees," in America. I am pretty well acquainted with the bees of Northern Africa, but do not know of such a race as "Punic;" nor is there such a species as *Apis niger* known to entomologists.

T. W. COWAN.

London, England, Oct. 1, 1891.

### Gratifying Report.

I had one colony of bees in the Spring. From it I obtained 14 swarms, and 127 pounds of honey in the comb. Can any one beat this record?

H. DENISON.

Stoddard, Wis., Nov. 3, 1891.

### Bees at the Massachusetts Fair.

Our fair has closed, and the copies of the AMERICAN BEE JOURNAL were distributed. I think fairs generally are not conducted by the proper persons, nor in a suitable manner. I took pains to noise it around the shire towns, and the bee-keepers flocked in. I had no idea that there were so many. I rather think that the JOURNAL I gave them was the first of the kind they had seen. I had honey in boxes and jars, a full hive, combs with queen-cells in various stages, foundation in its changes to full comb, pure beeswax in convenient junks, bee-escapes of three kinds, queen-cell protectors, and if I had room I should have had my honey extractor, also my wax.

SIDNEY A. FISHER.

Boston, Mass., Nov. 2, 1891.

**When Writing** a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

## The Merry Hum of Bees.

ROSALINE E. JONES.

As some sweet scrap of an old poem strays  
Back from oblivion and gladdens me,  
So steals upon my heart the memory  
Of you and the old days.

An echo echoes back a song unheard,  
Telling unwritten romances to me;  
Idylls unsyllabled in poetry.  
Of dates uncalendared.

A-maytime lilac blooms and hum of bees,  
And birds' and breezes' myriad carolings,  
And all the springtime's fugitive sweet  
things.  
Commingle ecstasies

That once we shared, but ne'er again shall  
know.  
Save in the vague, mysterious realm of  
dreams,  
Where heart keeps sacred tryst with heart,  
and seems  
Threading the long ago.

Today I know not where your footsteps wend:  
The world is large; our ways, meandering  
However deviously, yet never bring  
Our paths to the same end.

Where'er you face your way winds to the  
heights  
Beyond my reach. I keep the valley path.  
And glean the sweet late summer's aftermath,  
Fragrant with dear delights

That you would scarce count worth your gath-  
ering;  
You, who must win upon your upland ways.  
A hero's laurels and a poet's lays:  
Yet, while I try to sing.

I wonder if, perchance, some fledgling song  
Of mine may, one day, flutter tremulously,  
Warble in love spun lays ecstatically.  
The words unvoiced so long.

And reach your heart, like a dove messenger,  
And rouse regret and waken memory—  
That song should be my dearest song to me,  
My heart's interpreter.

Sometimes I think of you as one who passed  
Beyond the shadows to a bourne unknown.  
And then I dream you are my very own.  
My very own at last.

In the dream realm there are no laws, forsooth,  
And happily, lest in some wilding mood  
The vagrant dreamer should o'erbend its  
code,  
Or break it without ruth.

But from the trying place in fairy lands,  
The dreamer's yearning heart no trophy  
brings:  
Not e'en the memory of a kiss that clings,  
Or touch of loving hands.

And so I joy in thus remembering yet,  
And sending after you this raveled strand  
Of song, half honey-sweet with memory and  
Half bitter with regret.

Come to the Chicago feast, on Nov. 19.

## Wavelets of News.

## Uniting Colonies.

If I had small colonies that wished to unite, I would move them together, and let them get well established in their new location before disturbing them. I would move them in the evening, after all the workers had returned from the fields, and put grass or straw in front of the hive entrance, so that they could not leave as usual; a board in front, to bump their heads against, will cause them to notice a change in their location, and take their bearings.

When established in their new home, I would remove all their queens but one, and cage them, choosing the best one to remain with the colony.

When wanted to unite them, I would remove the hives from their old stand, and place a new hive in the center of the place where they stood, placing a smooth board in front of it to brush the bees upon. Then I would remove the frames containing brood from all the hives, brush off all the bees, and put the frames promiscuously into the new hive, and pour all the bees together in front of it, and drive the bees into it with smoke.

As neither of the colonies can lay claim to this home, they accept the conditions, and unite peaceably.—*Exchange.*

## When to Put Bees in the Cellar.

Many suppose it better to leave them out as long as possible—say, until the holidays. I do not concur. With bees, as with other animals, hardships do not harden them. It does not pay to leave an animal out until it is "Spring poor" before you stable it. Neither does it pay to leave the bees out after the warm days have gone. They eat more outside, and this is the very thing we wish to avoid, both on account of economy, and health of the bees.

If you could put them into a repository of just the right temperature, and if it could be maintained from Oct. 15 to April 15 at so nearly what the bees require, that they would consume not to exceed ten pounds per colony for the six months, I should say it was economy to house early.

I have been in the habit of commencing to carry mine in in the latter part of October, and usually finish in November, but have sometimes taken the last in as late as Christmas. I find the ones

carried in first in as good condition in the Spring (and they are always the last one out), after a confinement of six months, as the colonies taken in later with a confinement of only four months.

After the honey season is over, and the nights get cool, you will notice how sluggish the bees become. Now if put into winter quarters in that condition of sluggishness, and kept in such a state, they will endure a longer confinement than many suppose. It is activity that wears the bee out. The greater her activity, the shorter her life.—EUGENE SECOR, in the *Farmer and Breeder*.

### Look Out for Mice and Rats.

Unless the hive entrances are arranged so as to keep out mice, they will often build nests in them as soon as cold weather begins, thus doing great damage. A good way to prevent this is to tack a piece of stout wire-cloth over the entrance, the meshes of which are large enough to allow the bees to pass through freely.

When the bees are housed for Winter do not neglect to lay some poison in the cellar, or winter repository, to destroy rats and mice.

If some porous material is used for covering the brood-frames, upward or top ventilation is not needed, either for out or in-door wintering.

Entrances should open the whole width for in-door wintering, provided the temperature is kept above freezing. For out-door wintering the entrances should be contracted to a small opening when exposed to the cold Winter blasts, and also windbreak provided.

A good deal has been said about sub-ventilation to bee-cellars. I have tried it, and with many others have concluded that such ventilation is not needed. I have found that upward ventilation will keep the air pure, and also regulate the temperature. The part of the cellar where the stairs enter is partitioned off so that no light can get to the bees when the trap door is open.

In cold weather I heat the room above to regulate temperature in the cellar. I try to keep the temperature about 40°. If the cellar is damp the temperature should not go below 50°, and 60° would do no harm. With a dry cellar, however, this temperature would be rather high, unless the bees' Winter stores consist of honey which will keep liquid all Winter, and contains the right proportion of water.

If, however, the honey is very thick,

or, what is worse, granulated, the bees should have water in some way, or they will suffer. This is the reason why I do not like cemented floors for a bee-cellar. I want a cellar that has a warm, humid atmosphere, so that the honey, by absorbing moisture from the air, will keep in a natural condition.

There is no trouble about the honey getting sour in such a cellar as long as strong colonies are wintered, or no more combs are left them than they can well cover.

These directions for wintering, it should be remembered, are for sections where the Winters are not warmer than Central New York.—JULIUS HOFFMAN, in *Farm and Home*.

**We Club the American Bee Journal and the Illustrated Home Journal, one year for \$1.35. Both of these and Gleanings in Bee Culture, for one year, for \$2.15.**

### Convention Notices.

☞ The Michigan State Bee-Keepers' Association will meet in Grand Rapids, Mich., on Thursday, Dec. 31, 1891, and Friday, Jan. 1, 1892. GEO. E. HILTON, Sec., Fremont, Mich.

☞ The Illinois State Bee-Keepers' Association will meet in Springfield, Ills., on Wednesday and Thursday, Dec. 16 and 17, 1891. JAS. A. STONE, Sec., Bradfordton, Ills.

☞ The Eastern Iowa Bee-Keepers' Association will meet in De Witt, Iowa, on Wednesday and Thursday, Dec. 2 and 3, 1891. FRANK COVERDALE, Sec., Welton, Iowa.

☞ The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Streets, in Chicago, Ills., on Thursday and Friday, Nov. 19 and 20, at 9 a. m. Arrangements have been made with the Hotel for back room, one bed, two persons. \$1.75 per day, each; front room, \$2.00 per day for each person. This date occurs during the Fat Stock Show, when excursion rates on the railroads will be one fare for the round-trip.

W. Z. HUTCHINSON, Sec., Flint, Mich.

☞ The North American Bee-Keepers' Association will hold its annual convention in the Agricultural Hall, at Albany, N. Y., from Dec. 8 to 11, 1891. The hotel reduced terms are as follows: Globe Hotel, \$2 per day; American Hotel, \$2; Cox Brothers, No. 4 William st., \$1; W. H. Keeler, 488 Broadway, European plan, rooms 50 cts., 75 cts., and \$1; Kimbal House, 69 Washington st., \$1; Merchants Hotel, 497 Broadway, \$2; I. Keeler, restaurant, 56 State st.; Odel Restaurant, 94 State st. Reduced railroad rates have been secured from Chicago and the Mississippi River and from the South. Every local and State association should send one or more delegates. Those who intend to be present should send their names either to the President or Secretary. The programme will be issued soon, giving all particulars.

P. H. ELWOOD, Pres., Starkville, N. Y.  
C. P. DADANT, Sec., Hamilton, Ills.

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**Advertisements** intended for next week must reach this office by Saturday of this week.

**ALFRED H. NEWMAN,**

BUSINESS MANAGER.

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**[S]** Send us *one new* subscription, with \$1.00, and we will present you with a nice Pocket Dictionary.

**[S]** The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

**[S]** Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

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**[S]** As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

**CLUBBING LIST.**

**We Club** the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

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**Do not** send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

**When talking** about Bees to your friend or neighbor, you will oblige us by commending the *BEE JOURNAL* to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the *Convention Hand-Book*, by mail, postpaid. It sells at 50 cents.

**Bee-Keeping for Profit**, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

**Supply Dealers** should write to us for wholesale terms and cut for Hastings' Perfection Feeders.



**YOU NEED** an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for \$1.25; or for 200 colonies for \$1.50. *Order one now.*

**The Bee-Keepers' Directory**, by Henry Alley, Wenham, Mass. It contains his method for rearing queens in full colonies, while a fertile queen has possession of the combs. Price by mail, 50 cents.

**We send both the Home Journal and Bee Journal for one year, for \$1.35.**

**If you have a desire to know** how to have Queens fertilized in upper stories, while the old Queen is still laying below—how you may *safely introduce* any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing," a book of 170 pages, which is nicely bound in cloth, and is as interesting as a story. Price, \$1.00. For sale at this office.

**A Nice Pocket Dictionary** will be given as a premium for only **one new** subscriber to this JOURNAL, with \$1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

#### Well Pleased.

The October number of the HOME JOURNAL came duly, also the premium of \$2.00 in cash, for which please accept my thanks. I shall be pleased to answer any inquiries concerning your honorable dealings with me.

Belleville, Pa. KATE M. BOYER.

[Enclose an addressed postal card for reply.—Ed.]

#### Pleasant Surprise.

Your draft for \$2.00 as a premium for answer to the rebus came to hand to-day, and was a pleasant surprise. On account of the distance from Chicago I feared that I could not get the answer to you in time to be on the first list of names, so that I might obtain the prize. I hope to be as well or better pleased with the perusal of the ILLUSTRATED HOME JOURNAL in my leisure hours.

P. S. GRINDLE.

Brooklyn, Ala., Oct. 29, 1891.

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199, 201, 203 East Randolph St., CHICAGO, ILLS.

**HONEY AND BEESWAX MARKET.**

NEW YORK, Nov. 6.—Demand is limited, and supply sufficient. We quote: Comb—Fancy white, 1-lb., 14@15c; 2-lb., 12@13c; off grades, 1-lb., 12@13c; 2-lb., 11@12c; buckwheat, 1-lb., 10@11c; 2-lb., 9c. Extracted—Basswood, white clover and California, 6¾@7c; orange bloom, 7@7½c; Southern, 6@70c per gal., as to quality. Beeswax, steady, 25@27c.  
HILDKRETH BROS. & SEGELKEN,  
28-30 West Broadway.

KANSAS CITY, Nov. 7.—The demand and supply are fair. We quote: White comb, 1-lb., 15@16c; dark, 10@12c. Extracted—White, 7c; dark, 5@6c. Beeswax, in light supply, and demand good, at 23@26c.  
CLEMONS, MASON & CO.,  
Cor. 4th and Walnut Sts.

CINCINNATI, Nov. 7.—The demand is slow, with good supply, except choice comb. We quote: Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.  
C. F. MUTH & SON,  
Cor. Freeman & Central Aves.

NEW YORK, Nov. 6.—Demand for honey is fair, with adequate supply; buckwheat not so plentiful as clover. We quote: Fancy clover, 14@15c; fair, 1-lb., 12@13c; buckwheat, 10c. Extracted, 7@7½c. Beeswax, in fair demand, with adequate supply, at 25@27c.  
CHAS. ISRAEL & BROS., 110 Hudson St.

CHICAGO, Nov. 7.—The demand is good for fancy white comb-honey, in 1-lb. sections, at 16c; other grades white, 14@15c. Extracted honey selling slowly, owing to warm weather. We quote it at 6½@7½c. Beeswax, in light supply and good demand, at 26@27c.  
S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, Nov. 7.—Demand is good, with comb in fair and extracted in light supply. We quote: Comb—1-lb. fancy, 15@16c; dark, 12c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market.  
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Nov. 7.—The demand for comb-honey is fair and supply small. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.  
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Nov. 7.—Demand is good and supply small of gilt-edged stock. We quote: Choice white comb, 14@16c. Extracted, 6@8c. Beeswax, in light supply, and good demand, at 26@27c.  
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Nov. 6.—Demand not very brisk; supply good, and of better quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7@7½c; dark, 6@6½c. Beeswax, 25@28c.

A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Nov. 2.—Demand good, supply small. We quote: Comb, 1-lb., 10@13c. Extracted, 5½@6c. Beeswax, in light supply and good demand, at 24@25c.

SCHACHT, LEMCKE & STEINER,  
16 Drumm Street.

NEW YORK, Nov. 6.—Demand is moderate, and supply reduced, with no more glassed 1-lb. nor paper cartons, 1-lb. We quote: Comb, 1-lb., 14@15c. Extracted—Basswood, 7½@7¾c; buckwheat, 5½@6½c; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.

F. G. STROHMEYER & CO., 122 Water St.

CHICAGO, Nov. 7.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c.

R. A. BURNETT, 161 S. Water St.

BOSTON, Nov. 6.—Demand is good, supply ample. We quote: 1-lb. fancy white comb, 15@16c; extracted, 7@9c. Beeswax, none in market.

BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Nov. 6.—Demand good, and the supply liberal. We quote: White comb, 14@16c. Extracted—White, 7½@8½c; dark, 6@6½c. Beeswax, supply light, and demand good at 28@30c.

H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Nov. 6.—Demand active, and supply increasing by large arrivals. We quote: Fancy 1-lb. comb, 14@17c, depending on quality; 2-lb. sections, 2c less. Extracted—White clover and basswood, 6@8c, and supply not equal to the demand. Beeswax—the supply is not equal to the demand, which is brisk, at 26@29c, as to quality.

F. I. SAGE & SON, 183 Reade St.

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Under this heading, Notices of 5 lines, or less, will be inserted at 10 cents per line, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

**WANTED—TO BUY**—10,000 pounds choice comb-honey. Address—B. WALKER, Capac, Mich., or Glen Haven, Wis. 18Atf

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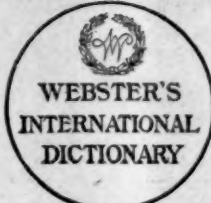
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